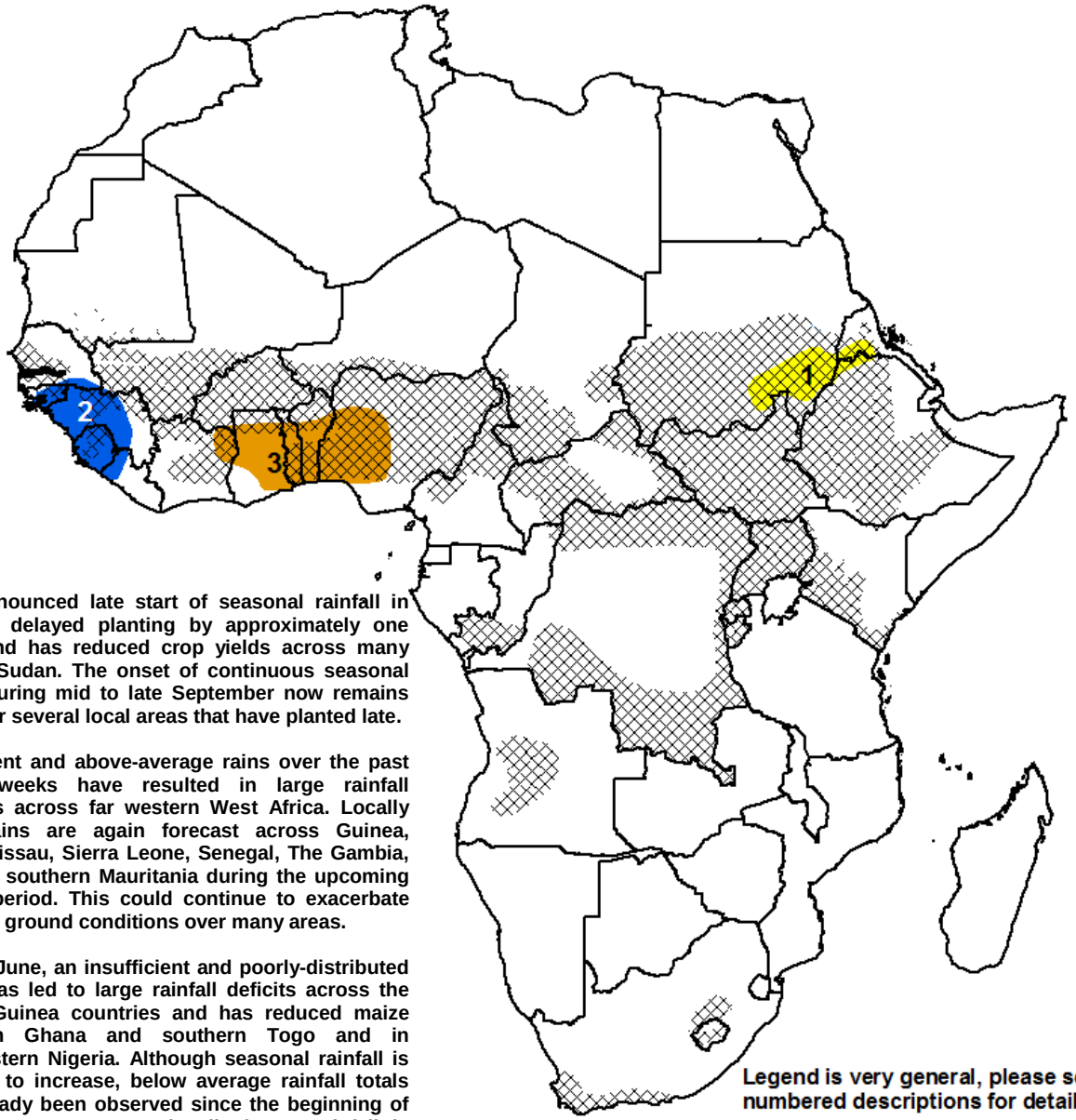
Climate Prediction Center's Africa Hazards Outlook
September 26 – October 2, 2013

- **Some relief to dryness is expected across the Gulf of Guinea region during the end of September.**



1) A pronounced late start of seasonal rainfall in July has delayed planting by approximately one month and has reduced crop yields across many parts of Sudan. The onset of continuous seasonal rainfall during mid to late September now remains critical for several local areas that have planted late.

2) Frequent and above-average rains over the past several weeks have resulted in large rainfall surpluses across far western West Africa. Locally heavy rains are again forecast across Guinea, Guinea-Bissau, Sierra Leone, Senegal, The Gambia, Mali, and southern Mauritania during the upcoming outlook period. This could continue to exacerbate saturated ground conditions over many areas.

3) Since June, an insufficient and poorly-distributed rainfall has led to large rainfall deficits across the Gulf of Guinea countries and has reduced maize yields in Ghana and southern Togo and in southwestern Nigeria. Although seasonal rainfall is expected to increase, below average rainfall totals have already been observed since the beginning of September. Average to locally heavy rainfall is forecast during the end of September, which is expected to relieve dryness. However, the return of heavy rainfall in the upper basin of the Niger River potentially may lead to downstream flooding in Nigeria.

Poorly distributed rainfall continued across Ghana, Togo, Benin and Nigeria.

In far western Africa, an enhancement of seasonal precipitation continued during the last week over many over saturated areas of southern Senegal, Guinea, western Mali, and Sierra Leone. The highest weekly accumulations (>75mm) were received in western Mali and Guinea, with abundant moisture and locally heavy rainfall extending as far north into southern Mauritania (**Figure 1**). In the Gulf of Guinea region, locally heavy rainfall was observed in central Cote d'Ivoire and central Togo, however, much lower and poorly distributed rainfall was predominately observed throughout the region.

The suppression of rainfall across many bimodal areas of Ghana, Togo, Benin and Nigeria in September follows a period of poor seasonal rainfall and moisture deficits earlier in the summer. According to satellite rainfall monitoring and climatology, these deficits have been sustained below the 25th percentile due to an early departure of rainfall in June and July combined with a prolonged dry period (*August break*) in August. This anomalous dryness has negatively impacted crop development and yields throughout Ghana, Togo and southwestern Nigeria. During the upcoming outlook period, an increase in both the amount and distribution of precipitation is forecast for the Gulf of Guinea region (**Figure 2**). This is expected to help mitigate anomalously dry ground conditions, and benefit the development of second period crops throughout many bimodal areas in the region. However, the return of heavy rainfall in the upper basin of the Niger River potentially may lead to downstream flooding in Nigeria.

Satellite Estimated Rainfall (mm)
Valid: September 15th – September 21st, 2013

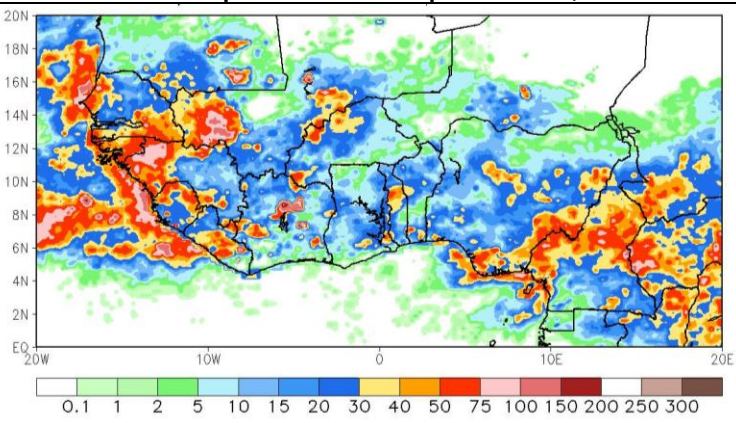


Figure 1: NOAA/CPC

GFS Rainfall Forecast (mm)
Valid: September 23rd – September 30th, 2013

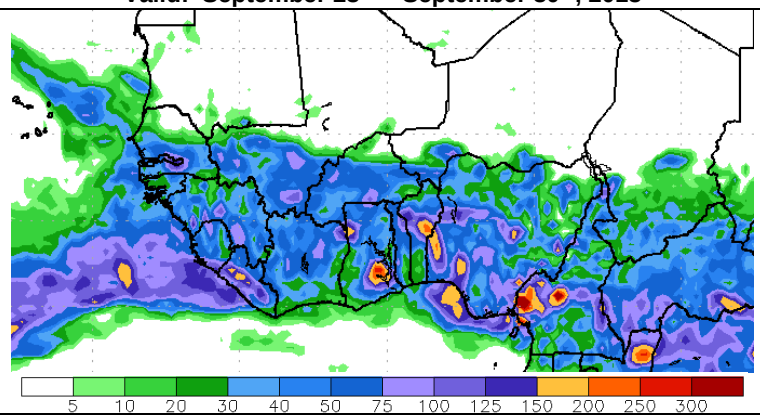


Figure 2: NOAA/CPC

Seasonal rainfall ending in Sudan and Ethiopia

During the past week, a seasonal distribution of rainfall was observed throughout western Ethiopia, Sudan and South Sudan. While East Africa rainfall has been relatively normal during the last few weeks in September, analysis of seasonal departures from normal suggest below-average conditions in eastern Sudan and Eritrea, and above-average conditions throughout many interior regions of Ethiopia since June (**Figure 3**). The observed dryness in eastern Sudan and across local portions of northwestern Ethiopia and Eritrea were associated with a pronounced delayed onset of seasonal precipitation which occurred during June and early July. However, since the onset of rains in July, both the frequency and magnitude of precipitation has been generally average to above-average. The increased rains late in the season is expected to help some local areas recover from anomalously dry ground conditions, and should help benefit crops that were planted later in the season. For next week, the highest rainfall amounts are forecast in southwestern Ethiopia, with enhanced rains expected in Uganda and Kenya as the Inter-Tropical front pushes southward.

Seasonal Percent of Normal Rainfall (%)
Valid: June 1st – September 21st, 2013

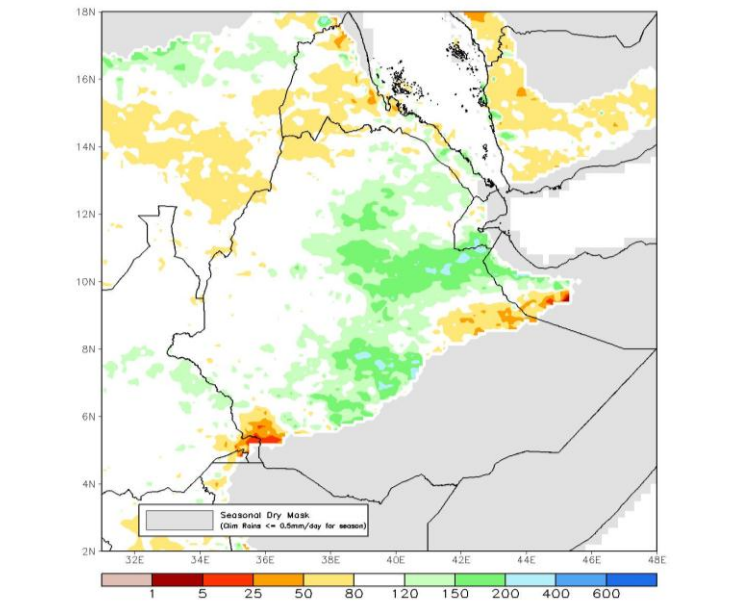


Figure 3: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

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